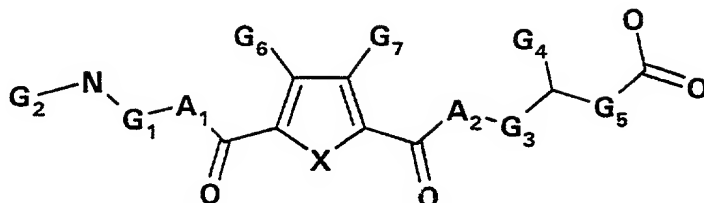


We claim:

1. A compound of the formula:



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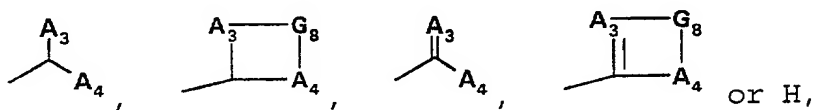
wherein X is selected from the group comprising O and S;

wherein A<sub>1</sub> and A<sub>2</sub> are individually selected from the group comprising O, S and N;

wherein G<sub>1</sub> and G<sub>3</sub> are C<sub>1-4</sub> alkyl chains;

10 wherein G<sub>5</sub> is a C<sub>0-4</sub> alkyl chain;

wherein G<sub>2</sub> is selected from the group comprising:



15 wherein A<sub>3</sub> and A<sub>4</sub> are individually selected from the group comprising O, N, or S, and G<sub>8</sub> is a C<sub>1-4</sub> alkyl chain;

wherein G<sub>4</sub> is a C<sub>5-8</sub> aryl, a C<sub>5-8</sub> arylsulfonylamino, an C<sub>5-8</sub> arylamino; and

20 wherein G<sub>6</sub> and G<sub>7</sub> are individually selected from the group comprising H, F, Cl, I, Br and a C<sub>1-4</sub> alkyl.

2. The compound of claim 1, wherein X is S.

25 3. The compound of claim 1, wherein X is O.

4. The compound of claim 1, wherein A<sub>1</sub> is N.

5. The compound of claim 1, wherein A<sub>1</sub> is O.

6. The compound of claim 1, wherein  $A_2$  is N.

7. The compound of claim 1, wherein  $A_2$  is O.

5 8. The compound of claim 1, wherein  $G_1$  is a  $C_1$  alkyl.

9. The compound of claim 1, wherein  $G_1$  is  $-(CH_2)_0-$ .

10. The compound of claim 1, wherein  $G_1$  is a  $C_2$  alkyl.

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11. The compound of claim 1, wherein  $G_1$  is a  $C_3$  alkyl.

12. The compound of claim 1, wherein  $G_3$  is a  $C_1$  alkyl.

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13. The compound of claim 1, wherein  $G_3$  is a  $C_2$  alkyl.

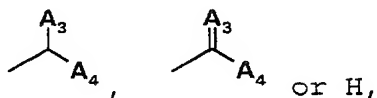
14. The compound of claim 1, wherein  $G_5$  is a  $C_1$  alkyl.

15. The compound of claim 1, wherein  $G_5$  is a  $C_2$  alkyl.

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16. The compound of claim 1, wherein  $G_2$  is represented by the formula:

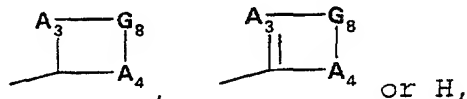
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wherein  $A_3$  is selected from the group comprising O, S and N and  $A_4$  is N.

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17. The compound of claim 1, wherein  $G_2$  is represented by the formula:



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wherein  $A_3$  and  $A_4$  are individually selected from the group comprising N or O and  $G_8$  is a  $C_{2-3}$  alkyl chain.

18. The compound of claim 1, wherein  $-N-G_2$  forms a guanidino containing moiety.

19. The compound of claim 1, wherein  $-N-G_2$  forms a urea containing moiety.

20. The compound of claim 1, wherein  $-N-G_2$  forms a cyclic guanidino containing moiety.

21. The compound of claim 1, wherein  $-N-G_2$  forms a cyclic urea containing moiety.

22. The compound of claim 1, wherein  $G_4$  is phenylsulfonylamino.

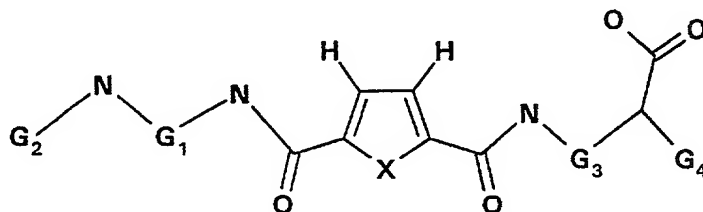
23. The compound of claim 1, wherein  $G_4$  is phenyl.

24. The compound of claim 1, wherein  $G_6$  and  $G_7$  are halogens.

25. The compound of claim 1, wherein  $G_6$  and  $G_7$  are the same.

26. The compound of claim 1, wherein  $G_6$  or  $G_7$  are F.

27. The compound of claim 1 further represented by the formula:



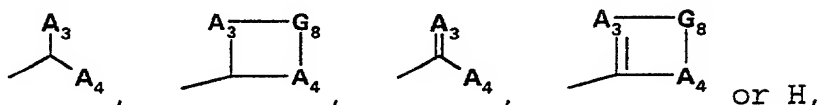
wherein X is selected from the group comprising O and S;

A<sub>1</sub> and A<sub>2</sub> are individually selected from the group comprising O, S and N;

G<sub>1</sub> and G<sub>3</sub> are C<sub>1-4</sub> alkyl chains;

G<sub>2</sub> is selected from the group comprising:

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wherein A<sub>3</sub> and A<sub>4</sub> are individually selected from the group comprising O, N, or S, and G<sub>8</sub> is a C<sub>1-4</sub> alkyl chain;

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wherein G<sub>4</sub> is a C<sub>5-8</sub> aryl, a C<sub>5-8</sub> arylsulfonylamino, or a C<sub>5-8</sub> arylamino; and

wherein G<sub>6</sub> and G<sub>7</sub> are individually selected from the group comprising H, F, Cl, I, Br and a C<sub>1-4</sub> alkyl.

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28. The compound of claim 26, wherein X is S.

29. The compound of claim 26, wherein X is O.

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30. The compound of claim 26, wherein G<sub>1</sub> is a C<sub>1</sub> alkyl.

31. The compound of claim 26, wherein G<sub>1</sub> is a C<sub>2</sub> alkyl.

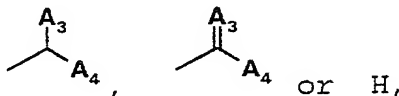
32. The compound of claim 26, wherein G<sub>3</sub> is a C<sub>1</sub> alkyl.

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33. The compound of claim 26, wherein G<sub>3</sub> is a C<sub>2</sub> alkyl.

34. The compound of claim 26, wherein G<sub>2</sub> is represented by the formula:

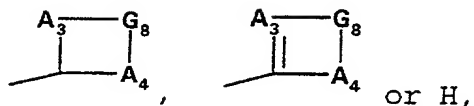
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wherein A<sub>3</sub> is selected from the group comprising O, S and N and A<sub>4</sub> is N.

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35. The compound of claim 26, wherein  $G_2$  is represented by the formula:



wherein  $A_3$  and  $A_4$  are individually selected from the group comprising N or O and  $G_8$  is a  $C_{2-3}$  alkyl chain.

10    36. The compound of claim 26, wherein  $-N-G_2$  forms a guanidino containing moiety.

37. The compound of claim 26, wherein  $-N-G_2$  forms a urea containing moiety.

15    38. The compound of claim 26, wherein  $-N-G_2$  forms is a cyclic guanidino containing moiety.

39. The compound of claim 26, wherein  $-N-G_2$  forms a cyclic urea containing moiety.

20    40. The compound of claim 26, wherein  $G_4$  is phenylsulfonylamino.

25    41. The compound of claim 26, wherein  $G_4$  is phenyl.

42. A method of treating cancer comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

30    43. A method of treating a tumor comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

44. A method of treating a solid tumor comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 5 45. A method of treating metastasis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 10 46. A method of inhibiting angiogenesis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 15 47. A method of inhibiting fibronectin binding comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 20 48. A method of inhibiting osteopontin binding comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 25 49. A method of treating foot and mouth disease comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 30 50. A method of treating osteoporosis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
- 35 51. A method of treating restenosis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.
52. A method of treating ocular diseases comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

53. A method of treating heart diseases comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

5 54. A method of treating arthritis comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

10 55. A method of treating diseases in which abnormal neovascularization occurs comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

15 56. A method of inhibiting  $\alpha_v$  integrins comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

20 57. A method of inhibiting  $\alpha_v\beta_3$  integrin comprising administering a pharmaceutically effective amount of the compound of claim 1 to a patient.

25 58. A pharmaceutical composition for treating cancer comprising a pharmaceutically effective amount of a compound of claim 1.

59. A pharmaceutical composition for treating tumor comprising a pharmaceutically effective amount of a compound of claim 1.

30 60. A pharmaceutical composition for treating solid tumor comprising a pharmaceutically effective amount of a compound of claim 1.

35 61. A pharmaceutical composition for treating metastasis comprising a pharmaceutically effective amount of a compound of claim 1.

62. A pharmaceutical composition for inhibiting angiogenesis comprising a pharmaceutically effective amount of a compound of claim 1.
- 5 63. A pharmaceutical composition for inhibiting fibronectin binding comprising a pharmaceutically effective amount of a compound of claim 1.
- 10 64. A pharmaceutical composition for inhibiting osteopontin binding comprising a pharmaceutically effective amount of a compound of claim 1.
- 15 65. A pharmaceutical composition for treating foot and mouth disease comprising a pharmaceutically effective amount of a compound of claim 1.
- 20 66. A pharmaceutical composition for treating osteoporosis comprising a pharmaceutically effective amount of a compound of claim 1.
- 25 67. A pharmaceutical composition for treating restenosis comprising a pharmaceutically effective amount of a compound of claim 1.
- 30 68. A pharmaceutical composition for treating ocular diseases comprising a pharmaceutically effective amount of a compound of claim 1.
- 35 69. A pharmaceutical composition for treating heart diseases comprising a pharmaceutically effective amount of a compound of claim 1.
70. A pharmaceutical composition for treating arthritis comprising a pharmaceutically effective amount of a compound of claim 1.



71. A pharmaceutical composition for treating diseases in which abnormal neovascularization occurs comprising a pharmaceutically effective amount of a compound of claim 1.

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72. A pharmaceutical composition for inhibiting  $\alpha_v$  integrins comprising a pharmaceutically effective amount of a compound of claim 1.

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73. A pharmaceutical composition for inhibiting  $\alpha_v\beta_3$  integrin comprising a pharmaceutically effective amount of a compound of claim 1.

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74. A combination useful for the treatment of cancer comprising at least one compound of claim 1 with at least one other anticancer agent or antiangiogenic agent.

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75. A combination useful for the treatment of cancer comprising at least one compound of claim 1 with at least one other anticancer agent selected from the group consisting of alkylating agents, antitumor antibiotics, antimetabolites, biological agents, hormonal agents, nitrogen mustard derivatives and plant alkaloids.

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